



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,409	10/15/2001	Frank Holm Iversen	6495-07	3178

7590 06/15/2004

McCormick, Paulding & Huber LLP  
CityPlace II  
185 Asylum Street  
Hartford, CT 06103-3402

EXAMINER

KIM, CHONG HWA

ART UNIT	PAPER NUMBER
----------	--------------

3682

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

COMMISSIONER FOR PATENTS  
UNITED STATES PATENT AND TRADEMARK OFFICE  
P.O. Box 1450  
ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

MAILED  
JUN 15 2004  
GROUP 3600

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/977,409  
Filing Date: October 15, 2001  
Appellant(s): IVERSEN ET AL.

---

Richard Michaud  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed Apr 28, 2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

Appellant's brief presents arguments relating to the new matter issue added in the Amendment to Fig. 3 (as stated in item no. 3). This issue relates to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter. See MPEP § 1002 and § 1201.

**(7) *Grouping of Claims***

Appellant's brief includes a statement that claims 1-10 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

Art Unit: 3682

**(9) Prior Art of Record**

4,856,366	Nikolaus	8-1989
6,024,548	Bushnell	2-2000

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-10 are rejected under 35 U.S.C. 103(a). This rejection is set forth in a prior Office Action, mailed on Jan 30, 2004.

**(11) Response to Argument**

**Claims 1-3 and 5-10 Are Not Obvious in View of Nikolaus:**

In response to the appellant's argument that the Examiner failed to establish a *prima facie* case of obviousness because the Examiner's rejection was based on "capability", it is noted that the question of "criticality" was also raised in the rejection in which the appellant has failed to respond.

As stated in the Final Office action made on Jan 30, 2004, pages 4 (last paragraph) and 7 (first paragraph), the question of "criticality" of the subject matter of the channel extending completely around the circumference of the bearing element was discussed by indicating that the applicant had not disclosed such 360 degree channel solving any stated problem or formed for any particular purpose. In other words, the specification is silent in regards to the criticality of the subject matter of the oil channel 27 extending completely around the bearing element 5. The Specification neither discusses why it is important or necessary to form the oil channel 27 completely around the bearing element 5 nor discloses the advantage of having a channel formed completely around the bearing element over a channel formed partly around the bearing element.

Art Unit: 3682

The only reference to the alternative channel design is discussed in the present invention from page 11, lines 28 to page 12, line 2;

The oil channel does not have to extend over the whole circumference. It is sufficient, when the oil channel 27 creates a communication between the opening of the longitudinal channel 23 and the radial bore 28. This simplifies the manufacturing of the second connecting rod eye 20.

It is important to understand the context in which the oil channel 27 plays in the oil supply arrangement as disclosed in the present invention. The oil channel 27 is not utilized to provide lubricant to the space between the bearing element 5 and the second connecting rod eye 20 (see page 11, lines 9-12). The bearing element and the second connecting rod eye are not rotated relative to each other. The oil channel 27 is merely formed to provide a connecting passage from the radial bore 28 and/or 34 to the longitudinal channel 23.

Therefore, extending the oil channel beyond the circumferential arc between the radial bores 28 or 34 and the longitudinal channel 23 appears to be unnecessary and neither provides any meaningful advantages, solves any stated problem, nor is for any particular purpose. Simply put, there is no critical functionality, even remotely close, the extended oil channel plays in the oil supply arrangement.

In response to the Appellant's argument that extending the channel 41 of Nikolaus completely around the bearing element would render the oil supply arrangement of Nikolaus inoperative, it is the Examiner's view that the oil supply arrangement would not deteriorate as the Appellant contends. A leakage and/or loss of pressure in the channel 41 of Nikolaus may be experienced through the mating joints of the connecting rod eye and the bearing element by

Art Unit: 3682

extending the channel completely around the bearing element. However, a person of ordinary skill in the art would recognize that the leakage and/or loss of pressure can be kept at a minimal by appropriately tightening the bolts 32 and thus it would not effect the operation of the oil supply arrangement. Even if the tightening the bolts does not resolve the problem, it is a common knowledge that a seal may be applied in those mating joints to prevent leakage/loss of pressure.

In response to the Appellant's argument that a person of ordinary skill in the art would not be motivated to extend channel past the ports 52 in Nikolaus because the Examiner has recognized that the purpose of the channel is to connect the ports to the longitudinal channel, it is noted that the rejection was based on the criticality issue on Appellant's disclosure rather than the rejection based on combination of references or the rejection based on what the Examiner had recognized. The motivation would be required when the rejection is based on the combination of references. However, as discussed above, the criticality issue was raised in the rationale for the obviousness rejection of the claims in which the Appellant has failed to properly respond.

In response to the Appellant's argument that it is not possible to extend channel 41 past tabs 65, 66, and recesses 68, 69 in Nikolaus, it is the Examiner's position that the tabs 65, 66, and recesses 68, 69 would not block the channel 41 being extended completely around the bearing element. It is puzzling how the Appellant calculated the width, depth, and length required to provide sufficient flow of oil in Nikolaus. However, the tabs and the recesses are

Art Unit: 3682

separated axially with enough distance that the channel 41 can be extended completely around the bearing element to provide sufficient flow of oil. The width of the channel can be more than the diameter of the oil feed passage 40 and less than the separation distance between each recess or each tab.

In response to the Appellant's argument that a statement in the specification has no bearing on what is recited in claim 1, the Examiner agrees with the appellant. However, it is, again, the criticality issue. The inclusion of the statement in the specification in the rationale formed in the rejection was to support the fact that there is no criticality in the subject matter of the channel being extended completely around the circumference, as noted above.

**Claims 4 is Not Obvious in View of Nikolaus Combined With Bushnell:**

In response to applicant's argument that combining Bushnell's axial groove would completely defeat the purpose of the oil channel arrangement of Nikolaus because the oil would squirt out from the crank pin and the bearing assembly, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The Examiner made the rejection based on the concept of a pocket 40-11 being defined in the crank pin 40-2 in the area near the opening 40-8 to distribute oil as disclosed by Bushnell that can be modified in the oil distribution arrangement discussed by Nikolaus rather

Art Unit: 3682

than modifying the oil well recesses 54 of Nikolaus with the exact same physical structure of the pocket 40-11 of Bushnell. Modifying the opening on the crank pin of Nikolaus with the concept of a pocket that distributes oil evenly across the contacting surfaces between the bearing element and the crank pin as taught by Bushnell would have been obvious to a person of ordinary skill in the art in order to provide a more effective lubrication that would help in extending the life of a compressor.

A pocket is defined as “Receptacle, container, as...a cavity containing a deposit.” by Merriam Webster’s Collegiate Dictionary, 10<sup>th</sup> Edition. The Appellant suggests that the pocket is designed to “ensure a better spread of oil in the contact area between the bearing element and the crank pin, and secondly it ensures an improved pumping effect.” Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus the limitation, “pocket”, has given its broadest interpretation. And the groove 40-11 as disclosed by Bushnell is construed to be a “pocket”.

Even if Nikolaus discloses oil well recesses that performs the Appellant’s pocket’s function, the additional oil pockets formed on the crank pin would not inhibit the viscous drag operation or the hydrodynamic lubrication of the oil well recesses of Nikolaus. Even if the additional oil pocket inhibits the viscous drag operation or the hydrodynamic lubrication, it would be negligible since the time span during the oil pockets overlapping the oil well recesses would be minimal. Rather, having additional oil pockets on the crank pin of Nikolaus would further reduce the friction coefficient because of the additional oil distribution by the oil pockets on the surfaces when the oil pockets are not in overlapping position with the oil well recesses.



Art Unit: 3682

**The Proposed Amendment to Figure 3 is Not New Subject Matter:**

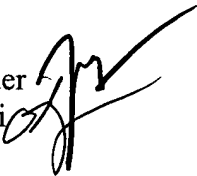
Since this issue is related to petitionable subject matter under 37 CFR 1.181 and not to appealable subject matter, the Examiner will not be responding to any of the arguments made by the Appellant under this heading. See MPEP § 1002 and § 1201.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

chk  
June 9, 2004

Conferees  
Jack Lavinder  
David Bucci



CHONG H. KIM  
PRIMARY EXAMINER

McCormick, Paulding & Huber LLP  
CityPlace II  
185 Asylum Street  
Hartford, CT 06103-3402